Threats and Opportunities in the Future of Pet Foods

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Introduction

To ensure sustainability of pet food and therefore pet ownership in the future, questions have to be raised regarding current trends of providing pet foods that contain nutrients in excess of minimum recommendations (Swanson et al., 2013). Currently, there is economic opportunity for pet food manufacturers in the production of raw-meat based diets, but also commercial high-protein dry or wet foods are on the rise in an attempt to mimic the ancestral diet considered superior by certain pet owners (Freeman et al., 2013). Whereas research on the usage of insects as an alternative protein source in human nutrition is on the rise (Rumpold and Schlüter, 2013), it seems there is an attitude-behavior gap regarding the concurrent trend to increase protein intake above current minimum requirements in our pets. Furthermore, risks associated with the usage of alternative raw meat-based diets by well-intending pet owners are hot topic regarding pet health.

Sustainability of Pet Foods

Sustainability can be described as 'meeting present needs without compromising future generation's needs' (WBCSD, 2017). Protein is requiring the most attention in the context of food sustainability, as it is the most expensive macronutrient in economic and environmental terms (Swanson et al., 2013). Many pet owners believe that cats and dogs require diets that resemble those of wild carnivores in order to thrive (Michel, 2006). Nutritional minimum protein requirements are currently known (NRC, 2006), however questions regarding an optimal macronutrient profile have to be raised. Where typically meat-based and high protein diets eaten by wild dog and cat ancestors can be considered optimal for short-term survival, this may not be the case for domestic pets that typically are suspected to have a respectively longer life span (Freeman et al., 2013). Furthermore, pet food sustainability can become increasingly compromised by negative consumer perception on the usage of animal by products (Laflamme et al., 2014); and diet overconsumption both resulting in food wastage and pet obesity (Swanson et al, 2013).

Raw Meat-based Diets

Diets containing raw meats are already fed for many years by zoos, racing and sled dog facilities (Michel et al., 2006; LeJeune and Hancock, 2001). Health benefits associated with the provision of these diets include better palatability, improved dental health and coat glossiness. Scientific evidence to substantiate these claims is however currently lacking (Freeman, 2013). Aside from these narrated health benefits, reservations regarding raw-meat based diets including nutritional adequacy and public health concerns have to be taken into account (Michel, 2006). Nutrient excesses and deficiencies are known risk factors (Schlesinger and Joffe, 2001), as well as contamination with pathogenic bacterial strains (Salmonella, Campylobacter, Escherichia coli, etc…), viruses (Aujeszky and rabies) and parasites (Sarcocystis spp, Neospora caninum, etc…) (LeJeune and Hancock, 2001).

Discussion - Conclusion

Future opportunities and challenges that provoke discussion among the companion animal community include pet food sustainability and usage of alternative diets. Pet owner opinion has an important effect on sustainability of commercial conventional or alternative pet foods, including nutrient composition and selection of ingredients. Even though more large cohort studies are needed to objectively evaluate risks (and benefits) of raw meat-based diets, there is enough evidence to address pet owners regarding possible zoonotic health implications (Schlesinger and Joffe, 2001).

Further reading

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